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SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SACRAMENTO

In re: QSA CASES	Judicial Council No. 4353 **DECLARATION OF PATRICK J. MALONEY IN SUPPORT OF MORGAN/HOLTZ RESPONSE TO METROPOLITAN WATER DISTRICT'S PHASE 1A BRIEF** Coordinated Trial Judge Honorable Roland L. Candee Trial Dates *Phase 1A*: Nov. 9, 10, 12, 16, 17, 19, 23, 24, 30 & Dec. 1, 2, 2009 *Phase 1B*: Dec. 14, 15, 17, 18, 2009 *Phase 1C*: Jan 4-7, 11-14, 19, 25, 26, 2010

I, Patrick J. Maloney, declare:

1. I am an attorney duly authorized to practice law in this State. I am one of the attorneys for the Morgan/Holtz parties and am in that capacity making this declaration.

2. In the latter part of March 2009 our office and our Imperial Valley Farmer/landowner clients' consulting engineers, Stetson Engineers, Inc., were contacted by Michael Cohen of the Pacific Foundation to see what could be done to further the implementation of our Farmer/landowner clients' work on Salton Sea restoration so potentially more water from Imperial Valley could be made available to the State of California without further environmental damage. Mr. Cohen was concerned about the inactivity on Salton Sea restoration, the potential damage to the environment, and the need for water in California during the current drought condition.

3. Mr. Cohen was a member of Salton Sea Advisory Committee created pursuant to created pursuant to Fish and Game Code section 2081.7 and Water Code section 1013.

4. After the contact by Mr. Cohen, I contacted Mr. Thomas Graff and asked him about Mr. Cohen's competence and whether it would be appropriate to recommend to the Farmer/landowner clients to work with Mr. Cohen on developing solutions to Mr. Cohen's concerns.

5. Mr. Graff's whose name appears throughout the AR is the retired Director of the Environmental Defense Fund. See e.g., AR 3/7/74368, AR 3/7/73433-73442, AR 3/7/72572/72572-72577.

6. Mr. Graff advised me that Mr. Cohen was well regarded in the environmental community and it would be appropriate for our Farmer/landowner clients to work with him.

7. I advised my clients of Mr. Graff's comments and my clients authorized this office and Stetson Engineers to work with Mr. Cohen on his issues.

8. The work resulted in a report and a substantial volume of exhibits in support thereof. The exhibits are contained on a CD with the title of Interim Solution for Salton Sea lodged

herein[1]. The report to which such voluminous exhibits related is attached hereto as Exhibit 1.

9. **Exhibit 1** (along with its exhibits) was delivered on or about early May 2009 to one of the attorneys for the Water Parties and the attorneys for the County of Imperial. We have had no response from any of the Water Parties on the proposed approach to Salton Sea restoration.

10. On or about October 10, 2009 the San Diego Union published an article describing the impact of the Salton Sea on the environment and the lack of action by the State, written by Michael Cohen. A copy of the article is attached hereto as **Exhibit 2.**

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[1] The content the CD is as follows:
EXHIBIT 1 February 27, 2009 Governor's Proclamation re State of Emergency – Water Shortage
EXHIBIT 2 Imperial Group's Comments on Salton Sea PEIR 1-16-07
EXHIBIT 3 Figure 2. Salton Sea Water Surface Elevations with Reduced Inflows
EXHIBIT 4 Chapter 8, Interest Groups Comments, Salton Sea Ecosystem, Restoration Final PEIR
EXHIBIT 5 The Salton Sink before the Great Flood of 1905, David Hornbeck
EXHIBIT 6 Concentric Lakes -- Draft Figure 6
EXHIBIT 7 Concentric Lakes – Draft Figure 4
EXHIBIT 8 Order of Withdrawal, Public Water Reserve Nos. 90 and 114
EXHIBIT 9 Concentric Lakes – Draft Figure 2
EXHIBIT 10 Concentric Lakes – Draft Figure 5
EXHIBIT 11 Part 417, Regional Director's Final Determinations and Recommendations, Imperial Irrigation District, Robert W. Johnson, U.S. Bureau of Reclamation, Lower Colorado Region, August 29, 2003
EXHIBIT 12 Patrick J. Maloney August 4, 2006 letter to Michael Hanemann
EXHIBIT 12A Patrick Maloney August 11, 2006, letter to Michael Hanemann
EXHIBIT 13 Response to Imperial Irrigation District's Qualification Request 617, Equitable Water Distribution System, October 15, 2007
EXHIBIT 14 Scheuring Ltr to Hanks dated March 30, 2009 re: Opposition to Notice re Setting IID Water Rates/Protest to Proposed Rate Increase
EXHIBIT 15 QSA-IID/SDCWA Water Transfer Quarterly Update 5/5/09
EXHIBIT 16 Thomas S. Virsik May 5, 2009, letter to Dave Fogerson, Joint Power Authorities
EXHIBIT 17 Robert W. Johnson December 19, 2002 letter to Jesse Silva, General Manager, IID, re final Biological Opinion.
EXHIBIT 18 Report of Investigation, Monterey County Water Resources Agency's Operation of Nacimiento Reservoir in San Luis Obispo County, April 18, 1997

11. A copy of the Final Judgment dated December 29, 1976 based on the stipulation of the parties by the Superior Court of the State of California in and for the County of Napa in the People v. Forni case on remand is attached hereto as **Exhibit 3**. I obtained a copy from the Court's official records and have retained it in the normal course of business.

12. A copy of most recent DWR publication on the Napa River Trial Distribution Plan (dated February 1999) as kept in the normal course business in our office is attached hereto and marked **Exhibit 4**. I have been advised that DWR is in the process of expanding the Program to include all of the tributaries to the Napa River.

13. In connection with the work Mr. Cohen and Stetson Engineers were doing, I inquired of the General Manager of the Monterey County Water Resources Agency, Mr. Curtis Weeks, what the County of Monterey had done in response to pressure of threats by the SWRCB under Water Code sections 100 and 275. Mr. Weeks provided a document prepared by his agency, a copy of which is attached as **Exhibit** . 5 This exhibit describes how the Farmer/landowners and the public agency worked together to solve the saltwater intrusion problem in the Salinas Valley.

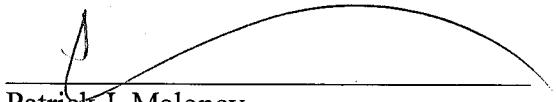
14. I have no independent information that the Imperial Irrigation District has to date solved any of the measurement, allocation, conservation, or water exchange issues described in Morgan/Holtz Application for Interim Relief filed in December 2007.

15. On or about September 30, 2009 the New York Times published an article about the need for water for the development of alternative energy in the Southwestern United States. A copy of the article is attached hereto as **Exhibit 6**.

16. Our clients have described to us the extensive geothermal resources in the Imperial Valley that have a need for water for their development.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Dated: October 29, 2009



Patrick J. Maloney

Maloney Declaration
Exhibit 1

Governor's Proclamation and the Optimization of Water in the IID Service Area.

The Governor has found that the State has a shortage of water due to the Drought Conditions and extraordinary efforts must be made to reduce the consequences of the Drought. **Exhibit 1** The Governor through the Department of Water Resources and the State Water Resources Control Board (SWRCB) is exercising significant powers to make sure the State's water resources are being optimized in different regions of the State. Such activities are permitted under the State Constitution and Water Code Section 275.[1] One of the most obvious water sources in California which could be used to relieve the Drought Conditions is the full optimization of the water resources in the Service Area of Imperial Irrigation District (IID). The problem with any optimization of these water resources is potential impacts to the environment, which will be caused by a reduction of flows into the Salton Sea. The Farming and NGO Communities in Imperial County and the Environmental Community (Proponents) recognize the importance of the Governor's Proclamation and the inter-relationship between the optimization of the water resources in the service area of IID and together have developed an Interim Restoration Solution (Interim Solution) to Salton Sea Restoration. The parties participating in developing the Interim Solution are set worth in **Exhibit 2.**

The Solution.

The Interim Solution is set forth in **Exhibit 3**. The Interim Solution uses many of the ideas developed in the PEIR process conducted by the Resources Agency of the State of California (Resources Agency) and the Proponents have developed the Interim Solution to meet the immediate need of the State for water and at the same time give appropriate respect to the History of the Salton Sea and protect endangered species. The Proponents submit that the facts and the law allow the implementation of the Interim Solution without interference from third parties. The Proponents submit that work can be commenced immediately on the Interim Solution and completed within five to seven years. During this time frame there can be substantial diversions in excess of the diversions contemplated by the QSA and these increased diversions will not interfere with the environment or the economy of the Imperial Valley. This assumes active participation of the Farming Community in the conservation of water for IID. The Proponents recognize that they are not being as conservative in their approach to permitting as the Resources Agency was in the preparation of the PEIR on the Salton Sea (See page 8-134 of the PEIR) **Exhibit 4** but the gravity of State's water shortage requires a solution that can be immediately implemented. The Proponents recognize their Interim Solution may not solve all of the problems of Salton Sea Restoration and expect these problems will be solved through adaptive management. This memo does not discuss funding for the Interim Solution but it is fully contemplated that any funding will have to receive Proposition 218 approval by the landowners in the water service area of IID and

[1] A good example of the exercise of State's powers during this Drought Conditions is the SWRCB actions on the Russian River.
http://www.swrcb.ca.gov/waterrights/board_decisions/adopted_orders/orders/wro2009.shtml

appropriate participation from the appropriate Government Agencies and the citizens of Imperial County.

Historical Facts and the Legal Consequences of the Facts.

A careful examination of the law when it is analyzed against facts surrounding the creation of the Salton Sea will demonstrate that the Interim Solution can be immediately implemented.

Facts

1. According to recorded History, The Salton Sink, the name of the area that makes up the current Salton Sea, received variable flows each year. The water came from a variety of sources but most of it came form the New and Alamo Rivers. The Sink usually dried up each year. Sometimes when there were extraordinary flows from the Colorado River there would be soughs in the Sink for the entire year. Hornbeck Research on the History of the Salton Sea. **Exhibit 5**

2. **Exhibit 6** shows what the Salton Sea looked after the 1885 Flood of the Colorado River before irrigated agriculture was developed in the Imperial Valley and before the Break on the Colorado River in 1905. The record in The Salton Sea Cases (1909) 172 Fed. 792 and Title Ins. & Trust Co. v. California Development Co. (1915) 171 Cal. 173 and related cases describe in detail the impact of the natural and agricultural flows on the size of the Salton Sea prior to the Break and the Break's impact on the Sea. **Exhibit 7** shows the extent of the Salton Sea after the 1905 Break and before the Break was repaired.

3. By 1924 the Salton Sea had been reduced in size because of the repair to the 1905 Break and better management by the Farmers and IID of the flows from the Colorado River.

In 1924 President Coolidge issued an Order which in part stated the following:

> Under and pursuant to the provisions of the act of Congress approved June 25, 1910 (36 Stat., 847), entitled "An act to authorize the President of the United State to make withdrawal of public lands in certain cases", as amended by act of Congress approved August 24, 2912 (37 Stat., 497), it is hereby ordered that the following described lands be, and the same are hereby, withdrawn from settlement, location, sale, or entry, and reserved for the purpose of creating a drainage reservoir in Salton Sea, California:

Public Water Reserve No. 90

Exhibit 8

The scope of this area withdrawn from public lands was coterminous with the Salton Sea, as it existed in 1924. **Exhibit 9.**

4. In 1928 President Coolidge issued an Order which in part stated the following:

> Under and pursuant to the provisions of the act of Congress approved June 25, 1910 (36 Stat., 847), entitled "An act to authorize the President of the United State to make withdrawals of public lands in certain cases", as amended by act of Congress approved August 24, 1912 (37 Stat., 497), it is hereby ordered that the land hereinafter listed be, and the same is hereby, withdrawn from settlement, location, ale, or entry, and reserved for public use in accordance with the provisions of Sec. 10 of the act of December 29, 1916 (39 Stat., 862):

Public Water Reserve No. 114

Exhibit 8

5. The scope of the area withdrawn from Public Use in 1928 was materially larger than the size of the Salton Sea in 1928. **Exhibit 10**. The Proponents do not know why President Coolidge increased the size of the Salton Sea. However, this was done while the Seven Party Agreement was being negotiated. The Proponents do not know if the increase in the size of the Salton Sea was done in order to create additional storage for diversions by California from the Colorado River.

6. According to Bureau of Reclamation, the flow of water into the Salton Sea does not have any relation to the cropping patterns in the water service area of IID:

> The increase in IID diversions cannot be supported by increases in estimated crop irrigation water requirements (Smith, August 2003, IID Box 25, item 2, pp.5, 7). As presented in this determination, the irrigation crop water requirements were not solely based on recent trends in crop acreages, but involved crop type, and other factors, and importantly, were also adjusted against measured overall district-wide water balance values for IID. The values presented in Factor 12 clearly show that increased diversions resulted in large increases in water discharged to the Salton Sea (Jensen/Walter, August 2003, p.3).
>
> Reclamation concludes that IID's water order/use history shows increasing use without commensurate increases in documented need. Water use in 2002 is the third highest in the most recent 40-year history, while irrigated acreage is the lowest since 1984. Reclamation also concludes that careful analysis of IID's water order for 2003 is warranted.

Page 29 BOR 417 Finding, **Exhibit 11**.

7. Both BOR and SWRCB have concerns about the measurement of water deliveries in the IID service area and the potential impact this problem has on the optimization of water by the landowners and necessarily the flows into the Salton Sea.

> Decision 1600 resulted from a state administrative proceeding brought by a farmer whose lands were being flooded by the rising level of the Salton

> Sea as a result of tailwater flows from IID. The SWRCB, after finding that curtailing excessive tailwater was one of several opportunities to conserve, ordered IID to develop a water accounting and monitoring procedure which would result in quantifying the following factors; deliveries to farmers' head gates, tailwater, canal spills, canal seepage and leach water. (Decision 1600, p. 68). The SWRCB concluded that "the right to make use of a large quantity of water carries with it the responsibility to account for its use accurately." (Decision 1600, p. 37). However, IID has not regularly maintained an active measurement and monitoring system of all of the factors cited by SWRCB.
>
> This determination is the product of an independent review of current information submitted to and analyzed by Reclamation. We note, however, that many of the current concerns regarding use of water within IID are similar to the observations and conclusions of the SWRCB nearly twenty years ago, when water use in IID was considerably less than it is today.

Page 30 BOR 417 Finding, **Exhibit 11**

8. The Imperial Valley Farmers in the service area of IID are aware of the measurement problem and have repeatedly offered to help resolve the measurement and allocation problems. **Exhibits 12 and 13**. These offers have been ignored or rejected by IID. The Proponents do not know what IID has accomplished to date on this issue. Recently IID proposed Water Rate increase and the Farmers as well as Imperial Valley's principal farming organizations, Imperial Valley Farm Bureau and Imperial Valley Vegetable Growers, actively opposed the increase in the Proposition 218 election. The position of the California Farm Bureau on the procedure followed by IID in connection with the 218 process is set forth in **Exhibit 14**. IID has not released the results of the vote completed on April 7, 2009.

10. IID has been working for six years on the QSA Water Conservation Implementation Process and is proposing in the future to invest approximately $80 million a year on the plan. This Plan would cost approximately twice what the current revenue of IID is from water rates. IID plans to complete this Plan and complete a Finance Plan and obtain financing during 2009. The Plan submitted to the IID Board of Directors by staff on May 5, 2009 is set forth in **Exhibit 15**.

11. The Imperial Valley Farmers have offered to work on potential water optimization plans in the existing QSA litigation with the Water Parties across the State and the State of California; all Water Parties have rejected this offer. If any Governmental Agency contends either the Farmers or IID were or are wasting water they would have taken the offer to enter into Settlement Negotiations. **Exhibit 16**. Their failure to respond to the Farmers' settlement offer suggests the Water Parties waived any Constitutional or Water Code Section 275 claims for the mismanagement of water against the Imperial Valley Farmers or IID.

12. The proposed Interim Solution will meet all of the potential environmental impacts as described in the Section 7 Consultation of BOR that might result from a Water Transfer from the Imperial Valley or the Interim Solution. **Exhibit 17**

13. The Resources Agency spent in excess of 25 million dollars preparing the PEIR. There was no Imperial Valley employment in the preparation of the DEIR on the Salton Sea Restoration and the State employees and contractors who worked on the DEIR were not representative of the demographics of Imperial County. The Resources Agency contends it was in compliance with all State Contracting laws. **Exhibit 4** Page 8-137.

14. Through the creation of some type of Local Development Corporation and appropriate bid negotiations with a responsible contractor to restore the Salton Sea it will be possible to guarantee jobs for residents of Imperial County.

Applicable Law

The legal ramification of the creation of the Salton Sea and what level of jurisdiction each Government Agency has over the Interim Solution is at first confusing. However, a careful review of the legal authorities on these issues gives guidance as to how the Salton Sea was historically created and managed and how the proposed Interim Solution would be in compliance with all applicable legal principles.

1. The Landowners in the Imperial Valley have certain pre 1914 water rights which were created by diversions from the Colorado River pursuant to existing State law. These rights are recognized in Bryant v. Yellen (1980) 447 US 352, n. 23.

2. IID has some type of limited management authority over these rights. The exact scope of this authority is being determined in the QSA Litigation. For the purposes of adopting the Interim Solution, it is not necessary to determine IID's ultimate authority.

3. The Landowners (IID) were implicitly given the right to control the flow into the Salton Sea. However, the Landowners' (IID) right to use and manage the water is limited by the Constitutional Article on the waste of water.

4. The Federal Government in 1924 and 1928 recognized the Landowners' (IID) right to use the Salton Sink as some type of Reservoir for the unused water diverted by the Colorado River. The Federal Government in the dedications does not make any distinction between water put to reasonable and beneficial use under applicable laws and wasted water.

5. In California v. United States (1978) 438 U.S. 645 the U.S. Supreme Court found California could exercise its power to protect the State interest on Environmental issues so long as the State's interests does not interfere with Federal Policies.

6. The States' power to control and manage the water practices of the Landowners (IID) and the flows into the Salton Sea was established in IID v. SWRCB (1990) 225 Cal.App.3d 548. This case gives the State of California the right to prevent the Landowners (IID) from wasting water in their exercise of pre 1914 water rights.

7. The Court in Nacimiento v. MCWRA (1993) 15 Cal. App.4th 200 recognized that a water right holder is not required to do a CEQA analysis when pursuant to the exercise of water rights it chooses to develop conservation practices which will optimize the water of the State of California and it is operating within the confines of its Water Right.

8. In response to a complaint filed against a water rights holder the staff of the SWRCB 1997 carefully analyzed the complaint about the permit holder's operation of its reservoir and concluded that complaint was without merit for the following reasons:

> CONCLUSIONS AND RECOMMENDATIONS:
>
> 1. Staff concludes that MCWRA has water rights for Nacimiento and San Antonio reservoirs which together cover its place of use for the water released from these reservoirs and is in compliance with the terms in their water right license regarding authorized place of use. Accordingly, the complaints alleging unauthorized place of use should be dismissed,
>
> 2. Although reservoir operations may adversely affect the recreational uses of Lake Nacimiento, staff finds that the water right permit issued for the reservoir for recharge of groundwater takes priority over the competing uses for recreation. Staff finds that the complainants have not provided sufficient evidence to establish that adverse impacts are occurring to fish and wildlife resources in Nacimiento Reservoir, caused by MCWRA's operation of the reservoir, to justify any action by the SWRBC.
>
> 3. MCWRA uses objective criteria to determine when to release water from Lake Nacimiento. Water does not appear to be used in a wasteful or unreasonable manner. Accordingly, complaints alleging waste or unreasonable use of water should be dismissed.
>
> 4. Staff finds that MCWRA's operation of the Nacimiento power plant and its development of power as an incidental use is authorized under water right Permit 19940. Accordingly, the complaints alleging unauthorized use of water should be dismissed.
>
> 5. MCWRA has shown a commitment to water conservation efforts.
>
> **Exhibit 18**

In essence what SWRCB staff is saying is that when a water rights holder is actively developing plans to optimize its entitlement to water it is not appropriate for third parties to interfere with this effort.

State's efforts

The Resources Agency of the State of California has developed a Programmatic EIR to restore the Salton Sea which the Legislature refuses to accept or fund. The obligation of

the State to restore the Salton Sea is currently in litigation. This Interim Solution does not contemplate any further participation of the State in the Restoration Process.

Local Participation

The Proponents are concerned that if the State of California or another Government Agency has exclusive control over the restoration of the Salton Sea any proposed Salton Sea Restoration will not guarantee employment to the residents of Imperial County and not reflect the demographic make up of Imperial County. The Proponents are in the process of developing an entity, which will be able to accomplish local employment in the Interim Solution of the Salton Sea.

Air Issue

The issue of air pollution is obviously a long term issue to which no one has any definitive answers. There is significant scientific and engineering dispute over this issue. The Interim Solution will deal with the short-term air quality issues and may become the long-term solution.

Other Restoration Plans

This solution does not contemplate interference with any third parties such as CVWD, the Torrez Martinez Tribe and the Counties of Imperial and Riverside from using the water resources over which they have rights as they see fit.

Maloney Declaration
Exhibit 2

Related Terms: San Diego County

State not meeting Salton Sea responsibilities

By Michael Cohen

2:00 a.m. October 10, 2009

The Legislature and much of California remain locked in a fight over the future of the Sacramento-San Joaquin River Delta. Not so long ago, there was a similar fight over California's other major water source, the Colorado River.

Six years ago today, Southern California urban and agricultural water agencies signed an historic agreement that reallocated billions of gallons of California's share of the Colorado River. The agreement, signed in the waning days of Gov. Gray Davis's administration and in the face of great pressure from the federal government and the other six states that depend upon Colorado River water, implemented the largest transfer of water from farmers to urban users ever seen.

To date, the Imperial Valley has sent nearly a quarter of a million acre-feet of water to San Diego County — enough to meet the annual water demand of 2 million people. San Diego has paid more than $70 million, adjusted for inflation, for this water, and spent almost as much again to transport it. Over the next six years, as the annual transfer volume increases, Imperial will send more than twice as much water to San Diego.

One of the biggest impediments to signing the 2003 agreement was responsibility for impacts to the Salton Sea. The sea, the largest lake in California, boasts the second-highest diversity of bird species in the U.S. and at times feeds and shelters hundreds of thousands of birds.

The water Imperial sends to San Diego was to come from improvements in efficiency, such as lining canals and pump-back systems on farm fields. But, in a cruel irony, such efficiency would come directly at the expense of water flowing to the Salton Sea. Less water would mean the lake — which has no outlet — would shrink, degrading water quality and exposing thousands of acres of former lake bed to the harsh desert winds, kicking up dust that could impair human health and crop production downwind. To offset these impacts, the water agencies agreed to fallow farmland instead of lining canals, and to send additional water to the sea to make up for the losses caused by fallowing, until

2018.

For its part, the state committed to develop a restoration plan for the sea and deliver this plan to the Legislature for authorization and funding. The state also committed to assume responsibility for air-quality management and other environmental impacts, once the water agencies had spent about $156 million (adjusted for inflation) on such costs. The state's liability was later estimated to exceed $800 million.

Six years later, where are we? The surface of the Salton Sea has fallen about 2.5 feet, decreasing the lake's maximum depth by about 5 percent. The sea has shrunk, exposing some 7,800 acres of former lake bed. The total volume of the sea has dropped by almost 8 percent, salinity has increased by about 8 percent, and overall water quality has declined. The corvina and other sportfish that used to attract anglers disappeared several years ago. Tilapia are the only fish still abundant in the sea, but eventually they too will succumb to the increasingly poor water quality.

California met its requirement to develop a restoration plan and submitted it to the Legislature in May 2007. Senate Bill 187, enacted last year to authorize some initial "no regrets" activities at the sea, marks the only new legislation on behalf of the sea. Yet California's recurring budget problems have delayed even these limited activities. Six years after the signing of the agreement, the state has spent some $20 million on consultants and meetings, but has almost nothing on the ground to show for it. In the next several weeks, the state and the water agencies will install six air-quality monitoring stations around the sea, to start to monitor dust emissions. The Torres-Martinez tribe has constructed an impressive 85-acre wetland on the north end of the sea, and the federal government built a 100-acre wetland at the south end, though that's in danger of being abandoned by the end of the year. Six years after the historic agreement, that's all we have on the ground at the Salton Sea.

What we don't have is a feasible long-term plan for the sea. We don't have a governance structure for developing and implementing a plan. We don't have a sign that the state is serious about the future of the sea. In 2018 — in less than a decade — the sea will begin a rapid and catastrophic decline, and the state will be in crisis mode yet again.

The water transfer and the Salton Sea were to be a test case of how California could move water while protecting public health, local economies, and dependent ecosystems. Six years later, California has done little to instill confidence that it takes its responsibilities seriously, or that it will take the actions necessary to protect public health and rescue imperiled ecosystems.

Cohen is a senior associate with the Pacific Institute and was a member of the state's Salton Sea Advisory Committee. He has written several reports and articles about the Salton Sea, which are available at www.pacinst.org .

Union-Tribune

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Check the box to include the list of links referenced in the article.

Maloney Declaration
Exhibit 3

ENDORSED

FILED DEC 29 1976

FLORENCE W. CUNNY, CLERK
BY L. F. MORGAN
DEPUTY CLERK

DEC 29 1976

Judg't. Entered

In Judgment Book 29, Page 199

Judgment Roll Filed DEC 29 1976
FLORENCE W. CUNNY, CLERK
By L. F. MORGAN Deputy

SUPERIOR COURT OF STATE OF CALIFORNIA

COUNTY OF NAPA

PEOPLE OF THE STATE OF CALIFORNIA ex rel., STATE WATER RESOURCES CONTROL BOARD, Plaintiffs, v. ALFRED F. FORNI; THEODORE J. LAURENT; VIRGIL A. GALLERON; PAUL L. GALLERON; DONALD M. CAMPBELL; ZINFANDEL ASSOCIATES; PAUL C. JAEGER; FRED BEROLDO; RENA BEROLDO; CHARLES A. CARPY; CROSSE AND BLACKWELL VINTAGE CELLARS, INC. DOES ONE through TWENTY, Defendants.	NO. 31785 JUDGMENT GRANTING PERMANENT INJUNCTION

Defendants Alfred F. Forni, Theodore J. Laurent, Virgil A. Galleron, Paul L. Galleron, Donald M. Campbell, Zinfandel Associates, Paul C. Jaeger, Fred Beroldo, Rena Beroldo, Charles A. Carpy and Crosse and Blackwell Vintage Cellars, Inc., have executed a Stipulation for Entry of Judgment Granting Permanent Injunction. Additional stipulations have been executed by Frank S. Emmolo and Cody C. Kirkham wherein said individuals have stipulated to their joinder as defendants in the above entitled action. Said stipulations have been filed with the Clerk of the Court upon application of plaintiff.

//

Good cause appearing therefore:

IT IS HEREBY ORDERED, ADJUDGED AND DECREED that Frank S. Emmolo and Cody C. Kirkham shall be joined as defendants herein and shall be entitled to the benefits and responsibilities of this Judgment in accordance with its terms, insofar as the land described in the attachments to their stipulations is concerned;

IT IS HEREBY FURTHER ORDERED, ADJUDGED AND DECREED that defendants, their agents, officers, employees, servants, successors in interest, assignees, subsidiary or parent corporations and all persons acting in concert or conspiracy with them, shall not henceforth divert water from the Napa River during the Napa Valley frost season -- March 15 to May 15 of each year -- except in accordance with the following definitions, findings and operational provisions which the Court adopts as its own:

I. DEFINITIONS

A. Allotment is each defendant's proportionate share of available water supply which a watermaster appointed by the plaintiff State Water Resources Control Board determines in accordance with paragraph III, Sub. 9 infra, that each defendant has a right to divert for frost protection purposes during any 24-hour period commencing at midnight.

B. Ample streamflow is a condition when the available water supply is great enough to allow all direct diverters to pump at the full capacity of their river pumps throughout a frost and to allow storage replenishment diverters, including nonriparians having appropriative rights to pump at the full capacity of their pumps continuously. The streamflow is considered to be ample when it exceeds 78

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cubic feet per second (cfs) measured at the USGS gaging station near Napa, Oak Knoll Road, (hereinafter, USGS gage) or when it would exceed that amount in the absence of any diversions by upstream diverters. The figure 78 cfs shall, if necessary, be adjusted yearly by the watermaster and shall depend upon total riparian pumping capacity for frost protection purposes.

C. Available water supply is that portion of the water flowing in Napa River over and above the amount necessary for the protection of fish in the Napa River. The watermaster will be guided by the requirement of 10 cfs for fish protection in the Napa River superior in priority to appropriative rights and correlative with riparian rights.

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D. Direct diverters are those defendants and other diverters who pump directly from Napa River onto vineyards for frost protection rather than pumping first into a reservoir of reasonable size, and if only part of their vineyard is so protected, they are direct diverters so far as the part so protected is concerned.

E. Full natural flow is the sum of the measured flow of the Napa River at the USGS gage and diversions being made concurrently by diverters upstream from the gage.

F. Napa River is that portion of the main stem of the Napa River between the uppermost and lower most diversion points inclusive of all frost season diverters.

G. Reservoir of reasonable size is a reservoir with capacity of approximately 50,000 gallons or more per acre of vineyards under sprinklers. A reservoir of less capacity may be considered reasonable at the discretion of the watermaster, who shall take into consideration (1) the extent of any supplemental water supply that may be available and (2) whether the capacity of the river pump is sufficiently low per acre of vineyard to have an insignificant effect on the ability of other diverters to pump their allotment.

H. Riparian land is the land of frost season diverters, including defendants, determined on an interim basis to be riparian to Napa River by the watermaster for the purpose of allocating water in 1976. Any land considered to be riparian during the 1976 frost season shall continue to be so considered unless a title search indicates otherwise. For other land, not included in the 1976 program or in a decree or order of a Court in a water adjudication proceeding, the watermaster will use county assessor's

parcel maps and conduct a field survey of each new participating vineyard to determine riparian status.

I. Storage replenishment diverters are those defendants and other diverters who pump water from Napa River, to replenish water stored in reservoirs of reasonable size prior to March 15, where both initially stored water and replenishment water is for later use on vineyards for frost protection.

IX. FINDINGS

A. Many of the vineyardists in Napa Valley are dependent on diversion of water from the Napa River for sprinkling to prevent frost damage to their vineyards during the season from about March 15 to May 15.

B. The streamflow available in the Napa River is at times insufficient to fulfill all direct diversion requirements and is occasionally insufficient to permit all frost protection storage reservoirs to be replenished after a frost by continuous pumping from Napa River.

C. Appropriative water rights administered by the State Water Resources Control Board are conditioned so that diversion of water after March 15 of each year is permitted only so long as the diverter is participating in a water distribution program to assure protection to prior rights.

D. Section 1051.5 of the Water Code authorizes the Board to conduct trial distribution of water in accordance with agreements.

E. The proper enforcement of this Judgment requires that both the instantaneous rate of discharge and the cumulative total volume of water pumped by each pump be measured.

//

//

III. OPERATIONAL PROVISIONS

1. A watermaster appointed by the plaintiff State Water Resources Control Board (hereinafter "the Board") will determine allotments to the defendants and will control the amount, the rate, and times of pumping of defendants.

2. The defendants shall abide by the instructions given to them by the watermaster.

3. All reservoirs must be filled and ready for use by March 15, unless additional time for filling is allowed by the watermaster.

4. All defendants will inform the watermaster of the name, address, and phone number of the person responsible for operating the frost protection system.

5. Meters shall be installed on each discharge line capable of measuring both the instantaneous pumping rate and the cumulative total volume of water pumped. The meters shall be installed and operable by March 15, 1977 unless additional time is granted by the watermaster. All other diverters shall be required by the watermaster to provide metering devices appropriate to their diversion methods.

6. The defendants shall reimburse the Board for a proportional share of the Board's actual expenses in providing the watermaster for the period March 15 to May 15, of each year. The expenses of the Board charged to each defendant shall be apportioned according to the proportion each defendant's acreage under sprinklers bears to the total acreage of all defendants and all participants in any yearly trial distribution program conducted by the Board.

7. Knowledge of the following facts is essential to the success of the distribution program:

//

a. Number of acres to be frost protected by each defendant.

b. Capacity of reservoir.

c. Capacity of river pump.

Each defendant shall inform the watermaster of these facts by February 15, 1977 and thereafter inform him of any changes.

8. Each defendant shall grant the watermaster reasonable right of access across the defendant's property and the right to inspect and measure pump capacities, acreages, reservoir storage levels, and diversion and sprinkler systems for the purpose of enforcing this judgment.

9. The watermaster will allot the available water supply when it is less than ample to the defendants, correlatively in proportion to total riparian acreage under sprinklers limited by pump diversion capacities. The watermaster will estimate the available water supply for allotments from gaging station data. Other data, such as channel storage, may be considered by the watermaster in estimating available water supply for allotments. Appropriators having nonriparian vineyards will be allowed to pump for this land only when streamflow is in excess of riparian direct diverters' and riparian storage replenishment diverters' requirements including replenishment of reservoirs serving riparian lands.

10. During less than ample streamflow conditions, the watermaster will inform each storage replenishment diverter and each direct diverter of the period of time during which the allotment can be pumped. Without interfering with the needs of storage replenishment diverters, the watermaster will prescribe pumping hours for storage replenishment diverters within the period of each day when these diversions will, insofar as possible, conflict least with direct diverter requirements.

11. Each direct diverter agrees to divert only his allotment when full natural flow is less than ample, and only when his system is equipped with a main control valve near the pump discharge and individual valves on each sprinkler line which provide the capability of reducing the rate of diversion in increments shown opposite the name of the direct diverter in Appendix "A" attached to this Judgment.

12. Unused allotments shall be considered as an increase in the available water supply for all other diverters in accordance with the priorities of the various rights.

13. To conserve water and prevent waste, the watermaster may at times allow diversion of water outside the normal pumping period established to carry out the terms of this Judgment, provided that such diversion will not deprive other diverters of their allotment.

14. Compliance by defendants with the instructions from the watermaster will be determined by taking readings of the meter on the discharge line of the pump or by any other reasonable method of determining the amount or rate of pumping.

15. Minor deviations by defendants from the pumping instructions given them by the watermaster shall be adjusted as promptly as possible.

16. Willful diversion by defendants of water not alloted them by the watermaster will be prima facie evidence of violation of the terms of this Judgment and the terms of any water right permit or license authorizing the diversion. A violation of the terms of this Judgment shall be cause for revocation of any permit or license issued for frost protection and shall be considered to constitute an unreasonable method of diversion within the meaning of Article X, Section 2

of the California Constitution and Sections 100, 101 and 275 of the Water Code.

IT IS HEREBY FURTHER ORDERED, ADJUDGED AND DECREED that in the event of a violation of the terms of this Judgment, the watermaster shall have the authority to apply to the Superior Court of Napa County for appropriate relief including an order prohibiting any further violation of the terms of this Agreement.

IT IS HEREBY FURTHER ORDERED, ADJUDGED AND DECREED that at the end of each frost season, the watermaster shall prepare a report summarizing any trial distribution program conducted by the Board and shall make available to all defendants all factual data collected.

IT IS HEREBY FURTHER ORDERED, ADJUDGED AND DECREED that defendants Charles A. Carpy and Crosse and Blackwell Vintage Cellars shall forthwith make proper application to plaintiff for permit to divert and store Napa River water in reservoirs for frost protection purposes.

IT IS HEREBY FURTHER ORDERED, ADJUDGED AND DECREED that experience gained during each season shall be drawn on at the end of each frost season to develop refinements leading eventually to a comprehensive control program for all Napa Valley vineyardists dependent on the Napa River and its tributaries for frost protection. This Court shall retain jurisdiction in this case to order modification of its Judgment so as to incorporate refinements based upon experience gained during each frost season.

IT IS HEREBY FURTHER ORDERED, ADJUDGED AND DECRRED that except as expressly provided herein nothing in this Judgment shall be deemed to modify or preempt any term or condition of any water right entitlement.

//

IT IS HEREBY FURTHER ORDERED, ADJUDGED AND DECREED that each party herein, shall bear his own costs of suit.

DATED: 12-29-, 1976.

THOMAS KONGSGAARD
JUDGE OF THE SUPERIOR COURT

Napa Superior Court No. 31785.

Maloney Declaration
Exhibit 4

The Resources Agency
DEPARTMENT OF WATER RESOURCES
Northern District

Napa River

Trial Distribution Program

1998 Frost Season

February 1999

Gray Davis
Governor
State of California

Mary D. Nichols
Secretary for Resources
The Resources Agency
(pending confirmation)

Stephen L. Kashiwada
Acting Director
Department of Water Resources

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES
Northern District

Napa River

Trial Distribution Program

1998 Frost Season

February 1999

Gray Davis
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The Resources Agency
(pending confirmation)

Stephen L. Kashiwada
Acting Director
Department of Water Resources

FOREWORD

This report describes the watermaster service provided by the Department of Water Resources under the Agreement for Trial Distribution on the Napa River during the 1998 frost season. The watermaster prepared this report as required by Paragraph Q of Section III of the Agreement.

Information about 1998 watermaster service for frost protection is presented in three chapters. The first chapter gives general introductory information, summarizes State policy on diversion of water in the Napa Valley for frost protection, and describes the legal action filed in the Superior Court of Napa County. Chapter II covers the trial distribution, including the 1998 Agreement signed by each vineyardist, the frost season summary, streamflow conditions in 1998, and regulations by the watermaster. Chapter III shows the cost apportionment to each participant.

For further information on the Napa River Trial Distribution Program, you may contact Kevin Taylor of DWR's Northern District at (530) 529-7354.

Naser J. Bateni, Chief
Northern District Office
Department of Water Resources

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(pending confirmation)

DEPARTMENT OF WATER RESOURCES
Stephen L. Kashiwada, Acting Director

Stephen L. Kashiwada
Deputy Director

Raymond D. Hart
Deputy Director

L. Lucinda Chipponeri
Assistant Director for Legislation

Susan N. Weber
Chief Counsel

DIVISION OF PLANNING AND LOCAL ASSISTANCE

William J. Bennett . . . . . Chief

NORTHERN DISTRICT

Naser J. Bateni . . . . . Chief

This report was prepared under the direction of

Glen S. Pearson . . . . . Chief, Resources Assessment Branch

John P. Clements . . . . . Chief, Watermaster and Hydrology Section

By

James P. Langley . . . . . Water Resources Engineering Associate and Watermaster for 1998

Editorial and Production Services

April Scholzen
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Michael Serna

CHAPTER I. INTRODUCTION

This report summarizes the operation of the water distribution program conducted by the Department of Water Resources in Napa Valley during the frost damage season in spring 1998. This was the twenty-fourth consecutive season in which a distribution program has been conducted. By signing an agreement, the participating vineyardists agreed to place their Napa River pumps under the control or administration of a representative of DWR acting as a watermaster. Prior orders of the State Water Resources Control Board in 1972 restricted diversion of water from the Napa River and its tributaries by persons holding water right permits. The orders made continued diversion of water for frost protection purposes contingent upon participation in such a control program.

State Policy

The State policy on diversion of water in the Napa Valley for frost protection is expressed in Sections 659 and 660, Title 23, of the California Administrative Code, which read as follows:

> "659. Napa River. Budding grape vines and certain other crops in the Napa Valley may be severely damaged by spring frosts. During a frost, the high instantaneous demand for water for frost protection by numerous vineyardists and other water users frequently exceeds the supply in the Napa River stream system. This results in uncoordinated diversions and possible infringements upon other rights. Therefore, all diversions of water from the stream system between March 15 and May 15 determined to be significant by the board or a court of competent jurisdiction shall be considered unreasonable and a violation of Water Code Section 100 unless controlled by a watermaster administering a board or court approved distribution program. Diversions for frost protection and irrigation during this period shall be restricted to: (1) replenishment of reservoirs filled prior to March 15 under an appropriative water right permit, or (2) diversions permitted by the court."
>
> "The service area of the distribution program may be revised at any time by order of the board or the court. SWRCB will retain jurisdiction to revise terms and conditions of all frost protection permits should future conditions warrant."
>
> "660. Replenishment. Diversion of water under the provisions of Section 659 during the spring frost season from March 15 to May 15 to replenish water stored in reservoirs prior to the frost season is "regulation," as defined in Article 6, Section 685(c): Replenishment diversion must be to reservoirs for which a permit or license authorizing winter storage prior to the frost season has been issued."

On December 21, 1972 SWRCB adopted a resolution whereby execution of the trial distribution agreement for 1973 and continued participation in the program in subsequent years would be accepted as compliance by permittees and would extend their diversion season through the frost season.

Legal Action

In March 1974, action was brought in the Superior Court of Napa County by SWRCB against 11 diverters which were alleged to be in violation of California Administrative Code Section 659 and Water Code Sections 1052 and 1225. The allegation was that the defendants had constructed sprinkling systems which would depend on direct diversion from the Napa River without using storage. Defendants countered that direct diversion was a reasonable exercise of riparian rights over which the State had no jurisdiction.

In December 1974, the Superior Court issued an order granting summary judgment upholding the defendants and denying the State's allegations. The ruling was appealed and, on January 23, 1976 a decision was handed down by the State Court of Appeals reversing the Superior Court decision. The defendants petitioned the Appellate Court for a rehearing and, on February 20, 1976 the petition was denied. The State Supreme Court refused to hear the case and remanded it to the Superior Court for a trial on the facts.

In October 1976, the suit, PEOPLE OF THE STATE OF CALIFORNIA ex rel., STATE WATER RESOURCES CONTROL BOARD (SWRCB) v. FORNI, et al. was settled by a stipulated judgment which required the 11 defendants to participate in the trial distribution program.

CHAPTER II. TRIAL DISTRIBUTION

1998 Agreement

The 1998 agreement for trial distribution was the same as the 1997 agreement. A copy of the agreement and an information sheet are included in Appendix A.

Thirty-five parties participated in the 1998 trial distribution agreement, representing 2,317 acres of vineyards under sprinklers, combined river pump capacity of 66 cubic feet per second (cfs) at 42 separate diversion points, and total reservoir capacity of 834 acre-feet. The parties were:

Sterling Vineyards
Walter Tamagni
Frank S. Emmolo
Benessere Vineyards
Freemark Abbey Winery
Theodore I. Laurent
Tom P. and Tae Tripodes
Lewis G. Carpenter
J. Lohr Vineyards
Dowdell Vineyards
Paul F. Pelosi
P. J. Vineyards
Fitch Robertson
Valeria Huneeus
Charles Carpy/Conolly
Sutter Home Winery
Frogs Leap Winery
Jaeger Vineyard
Sawyer Vineyard
St. Suprey Vineyard
J. Alex Vyborny
Swanson Vineyards
Rutherford Bench Vineyards
Los Ninos Vineyards
Yount Mill Vineyards
Beringer Wine Estates
Hermosa Vineyard
Robert Mondavi Vineyards
Rigi Vineyards
Monticello Vineyards
AWG Vineyards
Roy H. Elliott, Jr.
Silverado Hill Cellars
St. Andrews Vineyard
Michael Black

Those parties holding 29 of the 67 applications to appropriate water from the main stem Napa River participated in the program in 1998.

In accordance with the court's directive in PEOPLE OF THE STATE OF CALIFORNIA ex rel., STATE WATER RESOURCES CONTROL BOARD (SWRCB) v. FORNI, et al., the terms of the trial distribution agreement were modified to include the defendants, most of whom have no regulatory storage reservoirs. Six defendants or their successors participated in the 1998 program. They were Benessere Vineyards, Theodore I. Laurent, P. J. Vineyards, Charles Carpy/Conolly, Frank S. Emmolo, and Rutherford Bench Vineyards.

1998 Frost Season Summary

The U.S. Weather Service did not maintain any weather stations in the Napa Valley this year. The 1998 season was very wet with 3.19 inches falling in March with a normal being 4.00 inches. In April the precipitation was 3.63 inches with normal being 2.24 inches, and 2.34 inches in May with normal being 0.55 inches. The flow in the Napa River at the U.S. Geological Survey gaging station at Oak Knoll Avenue Bridge (USGS near Napa) varied from a high of 566 cfs on March 24 to a low of 125 cfs on May 10 and was constantly fluctuating because of the abundant precipitation.

The weather was above freezing most of the season except for one week in April when frost protection was needed throughout the valley. The vineyardist sprinkled for frost protection from a low of two times to a high of seven times. Three or four times was average.

Regulation by the Watermaster

DWR provided watermaster service from March 15 to May 15, 1998. As in past seasons, a combination of low streamflow and sustained frost did not occur.

Prior to the frost season, pumping charts were mailed to participants showing their allotment for each 24-hour period and the approximate number of hours that their river pump could be operated for any given flow in the River. Pump allotments stated in the charts were based on the capacity of each river pump and the acreage served by that pump in proportion to the total acreage being frost protected by diversion from the River by all participants.

A taped message giving the available flow in the River on each day, could be obtained by each participant by telephoning (707) 963-5337. Participants could determine their allotments that day by referring to a chart.

The available flow in the River was estimated by reading the Oak Knoll Avenue gage, determining the amount being diverted from the River, and knowing which pumps were capable of diverting from the River. Thirteen of the 42 diversions were not set up for pumping during the 1998 season. Those 13 pumps had a capacity of about 14.5 cfs.

Of the 42 diversions in the program, 35 were to storage reservoirs and 7 were for direct diversion for frost protection without intermediate storage. Six of the direct diversion participants depend on the River and have no alternative source of supply. Only 12 of the participants do not have wells or another source of supply. Most of the reservoirs in the program were nearly full at the beginning of the season. The majority had been filled from wells, and most were full during the frost season.

On March 17, 1998, only seventeen pumps were installed in the River and ready for use. Twenty-nine were installed and ready for use by April 20, 1998; none were installed after April 20.

During the frost season, the meters were read periodically. The quantity of water diverted by each pump is shown in Table 5 of Appendix B. Total water pumped for the season was 214 acre-feet, all of which was for storage for frost protection, irrigation, and replenishment. Most of the reservoirs have some leakage, requiring them to be topped off periodically during the frost season.

CHAPTER III. COST APPORTIONMENT

The 1998 agreement provides that the participants reimburse DWR for expenses in providing watermaster service, with the charge to each participant computed according to acreage in the program. The total expenses were apportioned to each party listed in downstream order as follows:

NAME	CONTRACT NUMBER	ACRES	COMPUTED COST
Sterling Vineyards	165892	247	$3,054.60
Walter Tamagni	165895	15	$185.50
Benessere Vineyard	165864	34	$420.47
Freemark Abbey Winery	165871	14	$173.14
Theodore I. Laurent	165878	22	$272.07
Tom P. and Tae Tripodes	165896	17	$210.24
Lewis G. Carpenter	165865	80	$989.34
J. Lohr Vineyards	165876	34	$420.47
Dowdell Vineyards	165867	46	$568.87
Paul F. Pelosi	165884	8	$98.93
P. J. Vineyards	165883	43	$531.77
Fitch Robertson	165886	13	$160.77
Valeria Huneeus	165875	76	$939.88
Charles Carpy/Conolly	165866	76	$939.88
Sutter Home Winery	165893	21	$259.70
Frogs Leap	165872	10	$123.67
Frank S. Emmolo	165870	36	$445.20
Sawyer Vineyards	165888	32	$395.74
J. Alex Vyborny	165898	36	$445.20
St. Suprey Winery	165890	34	$420.47
Swanson Vineyards	165894	86	$1,063.54
Yount Mill Vineyards	165901	55	$680.17
Rutherford Bench Vineyards	165887	3	$37.10
Los Ninos Vineyards	165879	42	$519.41
Beringer Wine Estates	165900	335	$4,142.87
Hermosa Vineyard	165873	20	$247.34
Robert Mondavi Vineyards	165881	300	$3,710.04
Rigi Vineyards	165885	100	$1,236.68
Jaeger Vineyards	165877	176	$2,176.56
Monticello Vineyards	165882	103	$1,273.78
AWG Vineyards	165863	43	$531.77
Roy H. Elliott, Jr.	165869	60	$742.01
Silverado Hill Cellars	165889	27	$333.90
St. Andrews Vineyard	165891	70	$865.68
Michael Black	165902	3	$37.10
	TOTAL	**2,317**	**$28,653.86**

APPENDIX A

AGREEMENT FOR TRIAL DISTRIBUTION

NAPA RIVER

1998 SEASON

I. DEFINITIONS

A. Allotment is each participant's proportionate share of available water supply, which a watermaster appointed by the California Department of Water Resources determines in accordance with Section III, subparagraph I, that each participant has a right to divert for frost protection purposes during any 24-hour period.

B. Ample streamflow is a condition when the available water supply is great enough to allow all direct diverters to pump at the full capacity of their river pumps throughout a frost and to allow storage to replenish diverters, including nonriparians having appropriative rights to pump at the full capacity of their pumps continuously. The streamflow is considered to be ample when it exceeds 76 cubic feet per second (cfs) measured at the USGS gaging station near Napa, Oak Knoll Road (hereinafter, USGS gage), or when it would exceed that amount in the absence of any diversions by upstream diverters. The figure 76 cfs shall, if necessary, be adjusted yearly by the watermaster and shall depend upon total pumping capacity for frost protection purposes.

C. Available water supply is that portion of the water flowing in Napa River over and above the amount necessary for the protection of fish in the Napa River. The watermaster will be guided by the requirement of 10 cfs for fish protection in the Napa River superior in priority to appropriative rights and correlative with riparian rights.

D. Direct diverters are those diverters who pump directly from Napa River onto vineyards for frost protection rather than pumping first into a reservoir of reasonable size; and if only part of their vineyard is so protected, they are direct diverters so far as the part so protected is concerned.

E. Napa River is that portion of the main stem of the Napa River between the uppermost and lowermost diversion points inclusive of all frost season diverters.

F. Reservoir of reasonable size is a reservoir with capacity of approximately fifty thousand (50,000) gallons or more per acre of vineyard under sprinklers. A reservoir of less capacity may be considered reasonable at the discretion of the watermaster, who shall take into consideration (1) the extent of any supplemental water supply that may be available and (2) whether the capacity of the river pump is sufficiently low per acre of vineyard to have an insignificant effect on the ability of other diverters to pump their allotment.

G. Riparian land is the land of frost season diverters determined on an interim basis to be riparian to Napa River by the watermaster for the purpose of allocating water in 1998. Any land considered to be riparian during the 1997 frost season, shall continue to be so considered unless title search indicates otherwise. For other land, not included in the 1997 program or in a decree or order of a court in a water adjudication proceeding, the watermaster shall use county assessor's parcel maps and conduct a field survey of each new participating vineyard to determine riparian status.

H. Storage replenishment diverters are those diverters who pump water from Napa River to replenish water stored in reservoirs of reasonable size prior to March 15, 1998, where both initially stored water and replenishment water is for later use on vineyards for frost protection.

II. RECITALS

WHEREAS:

A. Many of the vineyardists in Napa Valley are dependent on diversion of water from the Napa River for sprinkling to prevent frost damage to their vineyards during the season from about March 15 to May 15.

B. The streamflow available in the Napa River is at times insufficient to fulfill all direct diversion requirements, and is occasionally insufficient to permit all frost protection storage reservoirs to be replenished after a frost by continuous pumping from Napa River.

C. Appropriative water rights administered by the State Water Resources Control Board are conditioned so that diversion of water after March 15 of each year is permitted only so long as the diverter is participating in a water distribution program to assure protection to prior rights.

D. Section 1051.5 of the Water Code authorizes the Board to conduct trial distribution of water in accordance with agreements. The Board has assigned this authority to the Department of Water Resources.

E. This agreement for trial distribution during the 1998 frost season shall allow signatory appropriators to divert water under their pending applications, permits, or licenses.

F. Vineyardists having reservoirs may pump from the river to replenish depleted reservoirs at any time sufficient water is available, whereas the direct diverters can only beneficially pump water during an actual frost.

G. The proper conduct of this program requires that both the instantaneous rate of discharge and the cumulative total volume of water pumped by each pump be measured.

H. The Superior Court of State of California, County of Napa entered a Judgment Granting Permanent Injunction in PEOPLE OF THE STATE OF CALIFORNIA ex rel., STATE WATER RESOURCES CONTROL BOARD (SWRCB) v. FORNI et al. No. 31785 which requires that a watermaster appointed by the Board will determine allotments to the defendants and will control the amount, the rate, and times of pumping by defendants and said Judgment included other provisions similar to those in this agreement, including a requirement that defendants pay a proportionate share of the cost of the trial distribution.

I. It is necessary for the watermaster to conduct the trial distribution provided under this agreement, and under the court injunction referred to in paragraph H next above as one program to meet the objectives of both.

III. OPERATIONS

NOW, THEREFORE, the parties to this agreement by affixing their signatures hereby agree to divert water during the period March 15 to May 15, 1998, only as directed by the watermaster under the following provisions of this agreement:

A. A watermaster to be appointed by the Department of Water Resources will determine allotments to the parties and will control the amount, the rate, and times of pumping of all signatory parties.

B. The parties to the agreement shall abide by the instructions given to them by the watermaster.

C. All reservoirs must be filled and ready for use by March 15, 1998 under the conditions and priorities of their applications to appropriate water, unless additional time for filling is allowed by the watermaster.

D. All parties will inform the watermaster of the name, address, and phone number of the person responsible for operating the frost protection systems.

E. Meters shall be installed on each discharge line capable of measuring both the instantaneous pumping rate and the cumulative total volume of water pumped. The meters shall be installed and operable by March 15, 1998, unless granted additional time by the watermaster.

F. The parties shall reimburse the Department of Water Resources for its actual expenses in providing the watermaster for the period March 15, 1998, to May 15, 1998. The expenses of the Department charged to the parties shall be apportioned according to the proportion each party's acreage under sprinklers bears to the acreage of all parties in the 1998 program.

G. Knowledge of the following facts is essential to the success of the distribution program:

1. Number of acres to be frost protected in 1998 by each owner.

2. Capacity of reservoir.

3. Capacity of river pump.

Each person shall inform the watermaster of these facts by completing and returning the information sheet by January 15, 1998; and, thereafter, inform him of any changes (See Attachment A).

H. Each person agrees that the watermaster shall have reasonable right of access across the property and the right to inspect and measure pump capacities, acreages, reservoir storage levels, and sprinkler systems for the purpose of enforcing this agreement.

I. The watermaster will allot the available water supply when it is less than ample to the parties correlatively in proportion to each party's riparian acreage under sprinklers limited by pump diversion capacities. The watermaster will estimate the available water supply for allotments from gaging station data. Additional data, such as channel storage and velocity of flow will be used in estimating future available water supply as it becomes available. Appropriators having nonriparian vineyards will be allowed to pump for this land only when the streamflow is in excess of riparian requirements including replenishment of reservoirs serving riparian lands.

J. During less than ample streamflow conditions, the watermaster will inform each storage replenishment diverter and each direct diverter defendant in the PEOPLE OF THE STATE OF CALIFORNIA ex rel., STATE WATER RESOURCES CONTROL BOARD (SWRCB) v. FORNI et al. case of the period of time during which the allotment can be pumped. Without interfering with the needs of storage replenishment diverters, the watermaster will prescribe pumping hours for storage replenishment diverters within the period of each day when these diversions will, insofar as possible, conflict least with direct diverter requirements.

K. Unused allotments shall be considered as an increase in the available water supply for all other parties to this agreement in accordance with the priorities of the various rights.

L. To conserve water and prevent waste, the watermaster may at times allow diversion of water outside the normal pumping period established to carry out the terms of this agreement provided that such diversion will not deprive others of their allotment.

M. Compliance by the parties with the instructions from the watermaster will be determined by taking readings of the meter on the discharge line of the pump or by any other reasonable method of determining the amount or rate of pumping.

N. Minor deviations to the parties from the pumping instructions given them by the watermaster shall be adjusted as promptly as possible after they are discovered.

O. Willful diversion by parties of water not allotted to them by the watermaster will be prima facie evidence of violation of the terms of the agreement and/or the terms of the water right permit or license authorizing the diversion. A violation shall be cause for revocation of any permit or license issued for frost protection and shall be considered to constitute an unreasonable method of diversion within the meaning of Article X, Section 2 of the California Constitution and Sections 100 and 275 of the Water Code.

P. The watermaster shall have the authority to apply to the Superior Court of Napa County for appropriate relief including specific relief.

Q. At the end of the frost season, the watermaster shall prepare a report summarizing the 1998 program and shall make available to all parties all factual data collected.

R. Although this agreement is effective during the 1998 frost season only, the parties understand that experience gained during this season will be drawn on to endeavor to develop similar more refined distribution agreements in subsequent years resulting eventually in a comprehensive control program for all Napa Valley vineyardists dependent on the Napa River and its tributaries for frost protection.

S. To the extent possible the trial distribution program provided under this agreement and that provided under the court injunction referred to in Section II, paragraph H, will be considered one program as far as operation is concerned.

T. Signatories to this agreement do not, by entering into this agreement, acknowledge or affirm the existence of riparian rights for any vineyardist signatory hereto.

U. This agreement is in effect during the 1998 frost season only; when the 1998 frost season is over, the water rights of the signatory vineyardists will be as they existed prior to the execution of the agreement.

V. The signatory vineyardist's costs are allocated according to acreage as set forth in Section III, subparagraph G, of this agreement.

_____
Signature of Participant

_____
Printed Name

_____
Name of Vineyard

Date _____

_____
Naser J. Bateni, Chief
Northern District
Department of Water Resources

Date: _____

ATTACHMENT A

INFORMATION SHEET

NAPA RIVER AGREEMENT FOR TRIAL DISTRIBUTION - 1998 SEASON

Please complete the following, and return it with the signed agreements. PLEASE PRINT CLEARLY.

1. Name of vineyard: _____

2. Person to be contacted regarding operation of the frost protection system:

   Name: _____

   Telephone: _____

3. Total number of acres to be placed under frost protection in 1998: _____.

4. Capacity of river pump(s): _____ gallons per minute.

5. Location of meter: _____

   _____

6. Capacity of reservoir: _____acre-feet

7. If you have alternate sources of water, such as wells, please complete following:

   Alternate Source(s): _____

   Capacity: _____ gallons per minute.

8. If you are diverting from any other sources, please give name of sources and location of pumps.

   Name of Sources: _____

   Location of Pumps: _____

9. Signature: _____
   Participant

   _____
   Printed name of participant

APPENDIX B

TABLE 1

PARTICIPANTS' SPRINKLING SYSTEMS

Name	Acreage in 1998 Frost Protection Program	Reservoir Capacity (Acre Feet)	River Pump Capacity (gpm)
Sterling Vineyards	247	126	2250
Walter Tamagni	15	4	600
Benessere Vineyard	34	12	350
Freemark Abbey Winery	14	7	500
Theodore I. Laurent	22	0	1100
Tom P. and Tae Tripodes	17	11	150
Lewis G. Carpenter	80	15	900c/
Dowdell Vineyards	46	30	250
J. Lohr Vineyards	34	5	900
Paul F. Pelosi	8	0	400
P. J. Vineyards	43	0	900
Fitch Robertson	13	0	800
Valeria Huneeus	76	120	450
Charles Carpy/Conolly	76	6	1200
Sutter Home Winery	21	0	1200
Frogs Leap Winery	10	0	500
Frank S. Emmolo	36	2	700
Sawyer Vineyards	32	10	1000
St. Suprey Winery	34	10	200
J. Alex Vyborny	36	7	600
Swanson Vineyards	86	12	1,200c/
Rutherford Bench Vineyards	3	5	120
Los Ninos Vineyards	42	13	1200
Yount Mill Vineyards	55	15	1000
Beringer Wine Estates	335	95	2,400c/
Hermosa Vineyard	20	5	450
Robert Mondavi Vineyards	300	128	2,100b/
Rigi Vineyards	100	37	450
Jaeger Vineyards	176	40	1500
Monticello Vineyards	103	35	1500
AWG Vineyards	43	20	450
Roy H. Elliott, Jr.	60	28	575
Silverado Hill Cellars	27	11	500
St. Andrews Vineyard	70	26	2000
Michael Black	3	0	30
TOTAL	**2,317**	**835**	**$30,425**

TABLE 2

DAILY MEAN DISCHARGE OF NAPA RIVER
AT USGS STATION NEAR NAPA (OAK KNOLL AVENUE)
MARCH 1 TO MAY 31, 1998
(in cubic feet per second)

Day	March	April	May
1	672	316	183
2	591	277	188
3	534	307	183
4	478	422	176
5	448	400	172
6	452	346	169
7	405	312	161
8	386	280	157
9	359	272	151
10	339	273	146
11	321	266	148
12	310	245	177
13	407	399	180
14	353	344	157
15	317	317	148
16	298	297	142
17	272	275	136
18	260	258	134
19	250	245	126
20	237	231	120
21	235	220	117
22	232	211	115
23	329	319	115
24	566	482	113
25	410	315	112
26	368	268	109
27	304	242	110
28	286	223	165
29	259	206	481
30	233	190	571
31	280	190	338
Mean	361	292	178
Acre-Feet	22,200	17,370	10,920

TABLE 3

WATER PUMPED FROM NAPA RIVER DURING 1998 FROST SEASON

Name	Pump Installed in River 1998	Water Pumped (in Acre-Feet)
Sterling Vineyards (Calistoga)	X	7.81
Sterling Vineyards (Winery)	X	13.13
Sterling Vineyards (Tamagni)	X	4.78
Walter Tamagni		0.00
Sterling Vineyards (Bear Flat)	X	7.50
Benessere Vineyard	X	3.00E
Freemark Abbey Winery	X	0.55
Theodore I. Laurent	X	5.17
Tom P. & Tae Tripodes	X	1.00E
Lewis G. Carpenter (Lodi)	X	1.21
Lohr Vineyards	X	3.22
Lewis G. Carpenter (Fulton)	X	6.55
Dowdell Vineyards		0.00
Paul F. Pelosi	X	1.17
P. J. Vineyards		0.00
Fitch Robertson	X	2.44
Valeria Huneeus		0.00
Charles Carpy/Conolly	X	0.00
Sutter Home Winery	X	1.59
Frogs Leap Winery		0.00
Frank S. Emmolo		0.00
Sawyer Vineyard		0.00
St. Suprey		0.00
J. Alex Vyborny	X	0.00
Swanson Vineyards	X	0.59
Yount Mill Vineyard	X	3.26
Ruthford Bench Vineyards		0.00
Los Ninos Vineyards		0.00
Beringer Wine Estates (Upper)	X	10.00E
Hermosa		0.00
Robert Mondavi Vineyards (Upper)	X	23.36
Robert Mondavi Vineyards (Upper)		0.00
Rigi Vineyards	X	12.57
Robert Mondavi Vineyards (Lower)		0.00
Jaeger Vineyards (Lower)	X	63.66
Monticello Vineyards	X	37.88E
AWG Vineyards	X	2.09
Roy H. Elliott, Jr.		0.00
Silverado Hill Cellars	X	1.61E

Beringer Wine Estates (Lower)		X	0.00
St. Andrews	0.00		
Michael Black			0.00
	Total		213.52

E = Estimated

Maloney Declaration
Exhibit 5

Monterey County
Water Resources Agency

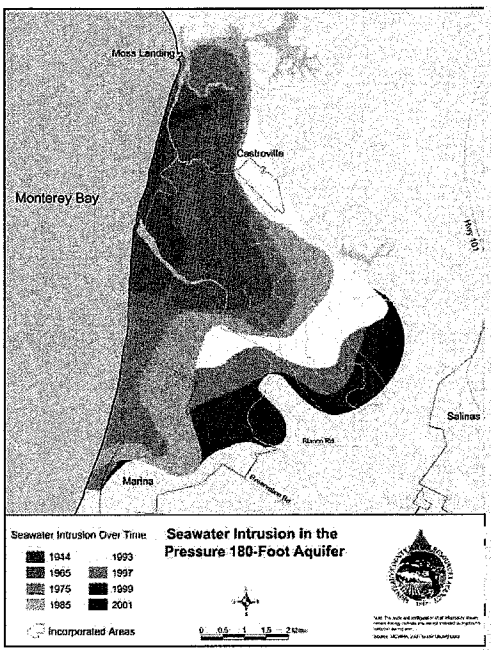
Mission

The Monterey County Water Resources Agency Manages, Protects, and Enhances the Quantity and Quality of Water and Provides Specified Flood Control Services for Present and Future Generations of Monterey County

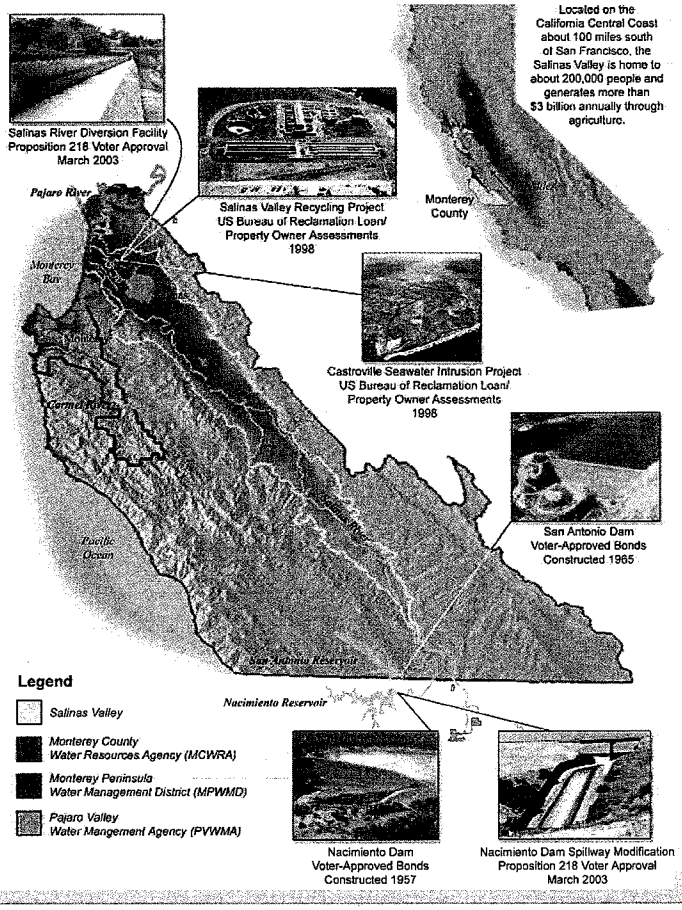
The Goal: Stop Seawater Intrusion

Successful passage of the Salinas Valley Water Project (SVWP) Proposition 218 ballot, a plan to:

- Stop seawater intrusion, avert a maximum flood event at Nacimiento Dam, and recharge the Salinas River Basin, and
- Assess Basin property owners by benefits received, ranging from $4.00 to $24.00 per irrigated acre, and
- Keep water management in local hands, fund it equitably, and ensure future water supplies.



50 Years of Building Projects to Stop Seawater Intrusion

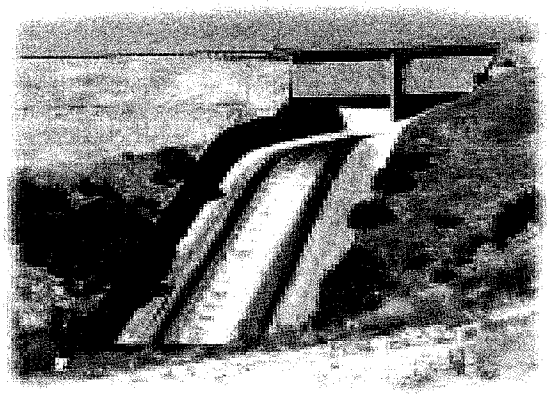


Critcal Elements that lead to a sucessful Ballot

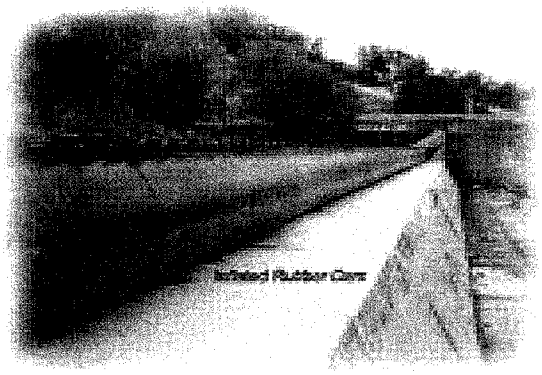
Successful passage of the Salinas Valley Water Project (SVWP) Proposition 218 ballot, a plan to:

- A well-defined project
- Building consensus around developing an equitable cost framework
- Innovation and taking the lead to insure a successful public outreach
- A successful ballot proceeding

The Project and its Capital Requirement:



$18.8 million

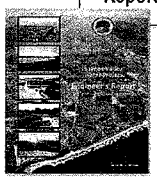


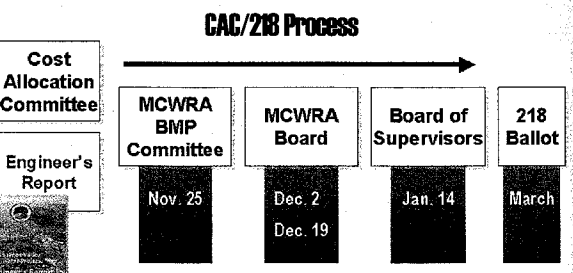
The Salinas Valley Water Project has two components – (1) enlarging the spillway at Nacimiento Dam to handle a maximum probable flood and prolong releases of water to the Salinas River so that the basin's groundwater can be recharged; (2) installing a rubber dam on the Salinas River near the city of Marina to temporarily store and divert water during dry periods. That water, about 10,000 acre-feet per year, will be used to further reduce groundwater pumping and recharging the area's aquifers to hold off seawater intrusion. During winter months, the rubber dam will be lowered so that water can flow to Monterey Bay and the endangered steelhead trout can make its way up the river to spawn in Arroyo Seco River waters.

Building Community Consensus and a Cost Framework:

via a Cost Allocation Committee (CAC)

Citizens representing each basin subarea and segment of the public were intimately involved with the details of how the project costs should be distributed amongst the stakeholders. They in turn communicated the rationale to fellow stakeholders within their spheres of influence.





via public meetings

Public Meetings on the SVWP

Informational Meetings

Prunedale – Thursday, Jan. 30, 7 p.m. to 9 p.m., Prunedale Grange, 17890 Moro Road

Castroville – Tuesday, Feb. 4, 7 p.m. to 9 p.m., Castroville Water District, 11499 Geil St.

North Salinas – Wednesday, Feb. 5, 7 p.m. to 9 p.m., Sherwood Hall, 940 N. Main St.

Prunedale – Thursday, Feb. 6, 7 p.m. to 9 p.m., Prunedale Grange, 17890 Moro Road

Salinas – Tuesday, Feb. 11, 7 p.m. to 9 p.m., Monterey County Ag Commissioner Center, 1428 Abbott St.

Soledad – Wednesday, Feb.12, 7 p.m. to 9 p.m., Soledad City Hall, 248 Main St.

King City – Thursday, Feb. 13, 7 p.m. to 9 p.m., Salinas Valley Fairgrounds, Orradre Ag Center

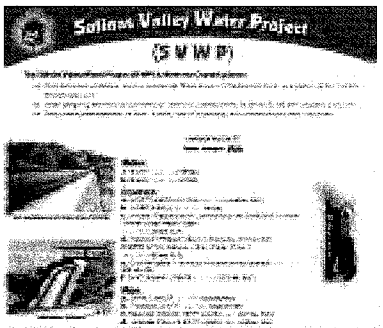
Public Hearing on Ballot Measure

Protest Hearing - Tuesday, March 25, 11:45 a.m., Board of Supervisors Chambers, Monterey County Courthouse , 240 Church St., Salinas

Subject to Change

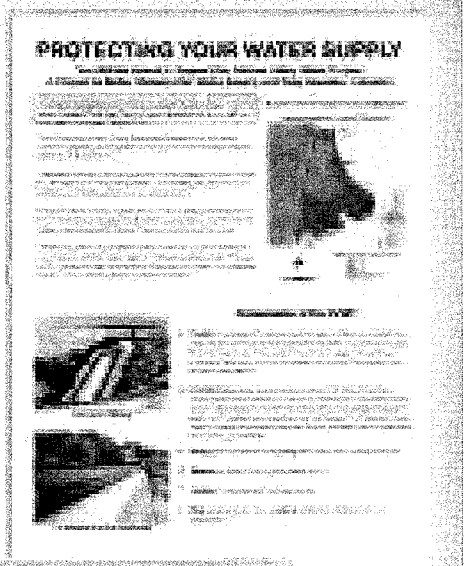
via well trained Staff

via the Internet



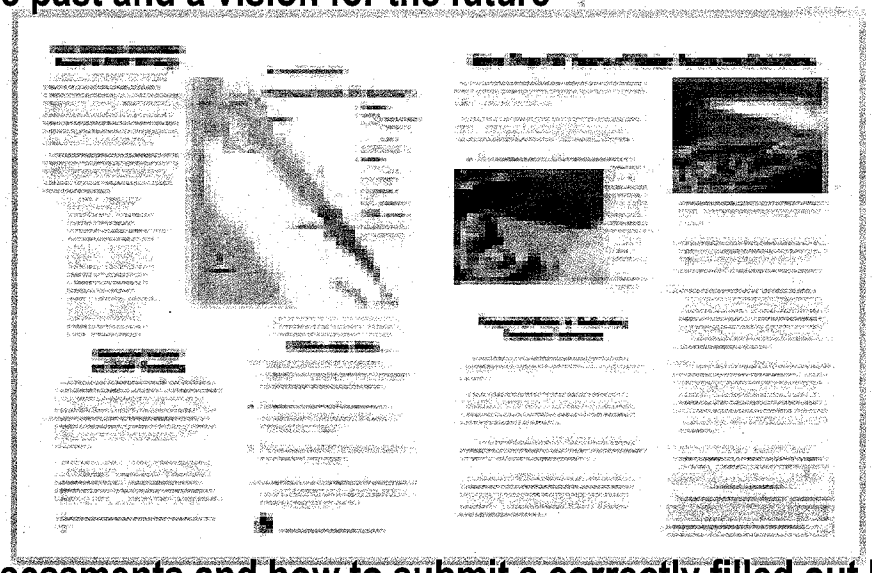
Public Information and Education:

Multiple, well timed, preparatory publications were mailed to educate staleholders about:

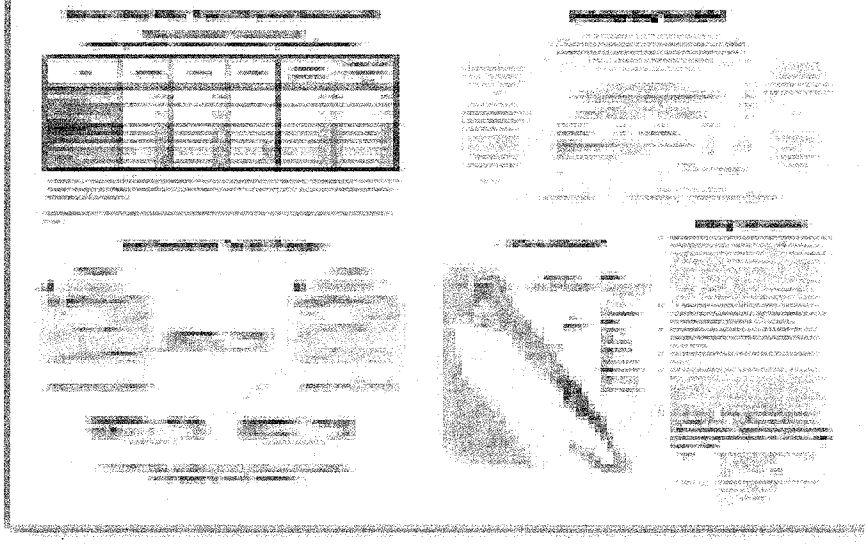


the problem and the projects

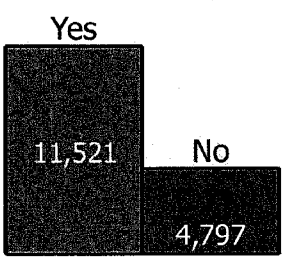
the past and a vision for the future



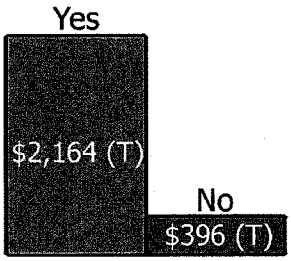
assessments and how to submit a correctly filled out ballot



Results: Proposition 218 Ballot Passes with 85% Yes

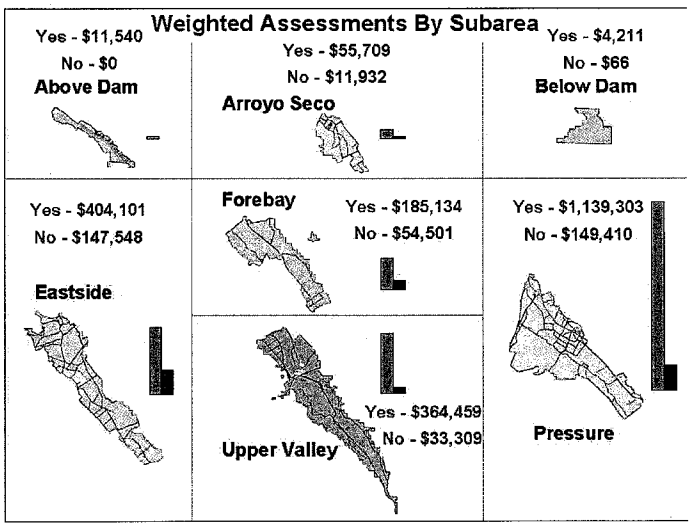


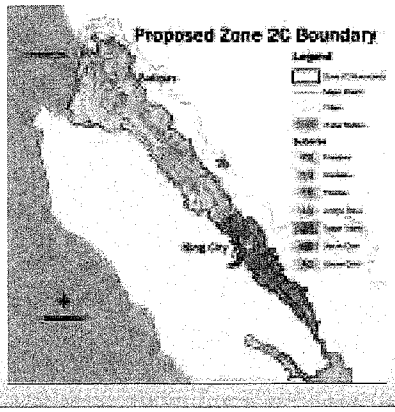
By Parcel



By Weighted Assessment

Recognizing that water is the lifeblood of the Salinas Valley, property owners voted yes on 85 percent of the assessment ballots returned. For passage, a majority plus 1 cent of the assessment ballots returned was required.





Maloney Declaration
Exhibit 6

September 30, 2009

Alternative Energy Projects Stumble on a Need for Water

By TODD WOODY

AMARGOSA VALLEY, Nev. — In a rural corner of Nevada reeling from the recession, a bit of salvation seemed to arrive last year. A German developer, Solar Millennium, announced plans to build two large solar farms here that would harness the sun to generate electricity, creating hundreds of jobs.

But then things got messy. The company revealed that its preferred method of cooling the power plants would consume 1.3 billion gallons of water a year, about 20 percent of this desert valley's available water.

Now Solar Millennium finds itself in the midst of a new-age version of a Western water war. The public is divided, pitting some people who hope to make money selling water rights to the company against others concerned about the project's impact on the community and the environment.

"I'm worried about my well and the wells of my neighbors," George Tucker, a retired chemical engineer, said on a blazing afternoon.

Here is an inconvenient truth about renewable energy: It can sometimes demand a huge amount of water. Many of the proposed solutions to the nation's energy problems, from certain types of solar farms to biofuel refineries to cleaner coal plants, could consume billions of gallons of water every year.

"When push comes to shove, water could become the real throttle on renewable energy," said Michael E. Webber, an assistant professor at the University of Texas in Austin who studies the relationship between energy and water.

Conflicts over water could shape the future of many energy technologies. The most water-efficient renewable technologies are not necessarily the most economical, but water shortages could give them a competitive edge.

In California, solar developers have already been forced to switch to less water-intensive technologies when local officials have refused to turn on the tap. Other big solar projects are mired in disputes with state regulators over water consumption.

To date, the flashpoint for such conflicts has been the Southwest, where dozens of multibillion-dollar solar power plants are planned for thousands of acres of desert. While most forms of energy production consume water, its availability is especially limited in the sunny areas that are otherwise well suited for solar farms.

At public hearings from Albuquerque to San Luis Obispo, Calif., local residents have sounded alarms over the impact that this industrialization will have on wildlife, their desert solitude and, most of all, their water.

Joni Eastley, chairwoman of the county commission in Nye County, Nev., which includes Amargosa Valley, said at one hearing that her area had been "inundated" with requests from renewable energy developers that "far exceed the amount of available water."

Many projects involve building solar thermal plants, which use cheaper technology than the solar panels often seen on roofs. In such plants, mirrors heat a liquid to create steam that drives an electricity-generating turbine. As in a fossil fuel power plant, that steam must be condensed back to water and cooled for reuse.

The conventional method is called wet cooling. Hot water flows through a cooling tower where the excess heat evaporates along with some of the water, which must be replenished constantly. An alternative, dry cooling, uses fans and heat exchangers, much like a car's radiator. Far less water is consumed, but dry cooling adds costs and reduces efficiency — and profits.

The efficiency problem is especially acute with the most tried-and-proven technique, using mirrors arrayed in long troughs. "Trough technology has been more financeable, but now trough presents a separate risk — water," said Nathaniel Bullard, a solar analyst with New Energy Finance, a London research firm.

That could provide opportunities for developers of photovoltaic power plants, which take the type of solar panels found on residential rooftops and mount them on the ground in huge arrays. They are typically more expensive and less efficient than solar thermal farms but require a relatively small amount of water, mainly to wash the panels.

In California alone, plans are under way for 35 large-scale solar projects that, in bright sunshine, would generate 12,000 megawatts of electricity, equal to the output of about 10 nuclear power plants.

Their water use would vary widely. BrightSource Energy's dry-cooled Ivanpah project in Southern California would consume an estimated 25 million gallons a year, mainly to wash mirrors. But a wet-cooled solar trough power plant barely half Ivanpah's size proposed by the Spanish developer Abengoa Solar would draw 705 million gallons of water in an area of the Mojave Desert that receives scant rainfall.

One of the most contentious disputes is over a proposed wet-cooled trough plant that NextEra Energy Resources, a subsidiary of the utility giant FPL Group, plans to build in a dry area east of Bakersfield, Calif.

NextEra wants to tap freshwater wells to supply the 521 million gallons of cooling water the plant, the Beacon Solar Energy Project, would consume in a year, despite a state policy against the use of drinking-quality water for power plant cooling.

Mike Edminston, a city council member from nearby California City, warned at a hearing that groundwater recharge was already "not keeping up with the utilization we have."

The fight over water has moved into the California Legislature, where a bill has been introduced to allow renewable energy power plants to use drinking water for cooling if certain conditions are met.

"By allowing projects to use fresh water, the bill would remove any incentives that developers have to use technologies that minimize water use," said Terry O'Brien, a California Energy Commission deputy director.

NextEra has resisted using dry cooling but is considering the feasibility of piping in reclaimed water. "At some point if costs are just layered on, a project becomes uncompetitive," said Michael O'Sullivan, a senior vice president at NextEra.

Water disputes forced Solar Millennium to abandon wet cooling for a proposed solar trough power plant in Ridgecrest, Calif., after the water district refused to supply the 815 million gallons of water a year the project would need. The company subsequently proposed to dry cool two other massive Southern California solar trough farms it wants to build in the Mojave Desert.

"We will not do any wet cooling in California," said Rainer Aringhoff, president of Solar Millennium's American operations. "There are simply no plants being permitted here with wet cooling."

One solar developer, BrightSource Energy, hopes to capitalize on the water problem with a technology that focuses mirrors on a tower, producing higher-temperature steam than trough systems. The system can use dry cooling without suffering a prohibitive decline in power output, said Tom Doyle, an executive vice president at BrightSource.

The greater water efficiency was one factor that led VantagePoint Venture Partners, a Silicon Valley venture capital firm, to invest in BrightSource. "Our approach is high sensitivity to water use," said Alan E. Salzman, VantagePoint's chief executive. "We thought that was going to be huge differentiator."

Even solar projects with low water consumption face hurdles, however. Tessera Solar is planning a large project in the California desert that would use only 12 million gallons annually, mostly to wash mirrors. But because it would draw upon a severely depleted aquifer, Tessera may have to buy rights to 10 times that amount of water and then retire the pumping rights to the water it does not use. For a second big solar farm, Tessera has agreed to fund improvements to a local irrigation district in exchange for access to reclaimed water.

"We have a challenge in finding water even though we're low water use," said Sean Gallagher, a Tessera executive. "It forces you to do some creative deals."

In the Amargosa Valley, Solar Millennium may have to negotiate access to water with scores of individuals and companies who own the right to stick a straw in the aquifer, so to speak, and withdraw a prescribed amount of water each year.

"There are a lot of people out here for whom their water rights are their life savings, their retirement," said Ed Goedhart, a local farmer and state legislator, as he drove past pockets of sun-beaten mobile homes and luminescent patches of irrigated alfalfa. Farmers will be growing less of the crop, he said, if they decide to sell their water rights to Solar Millennium.

"We'll be growing megawatts instead of alfalfa," Mr. Goedhart said.

While water is particularly scarce in the West, it is becoming a problem all over the country as the population grows. Daniel M. Kammen, director of the Renewable and Appropriate Energy Laboratory at the University of California, Berkeley, predicted that as intensive renewable energy development spreads, water issues will follow.

"When we start getting 20 percent, 30 percent or 40 percent of our power from renewables," Mr. Kammen said, "water will be a key issue."